SBRUCE MANUAL

AUDIO MIXER PRO MX-1200



®NKEL

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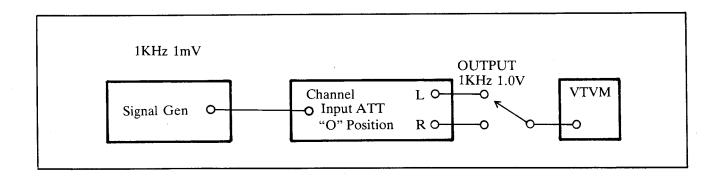
ELECTRICAL ADJUSTMENT PROCEDURE

1. OUTPUT LEVEL METER ADJUSTMENT

A. SETTING (CHANNEL 1)

: High Impedance sel : 0 position Input ATT : Center High control : Center Mid control : Center Low control : 0 position Echo control : Center Pan control : Max position Input volume control

B. CONNECTION

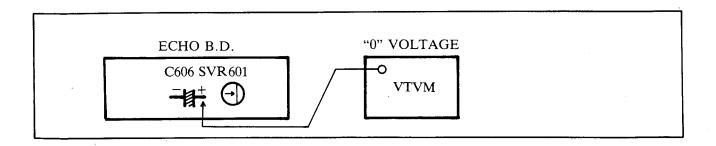


C. ADJUSTMENT

- (1) Apply a 1KHz input signal of 1mV
- (2) Adjust the master volume so that output voltage is 1V
- (3) Adjust SVR901A/B so that output level meter indicate "OdB" position.

2. ECHO NOISE ADJUSTMENT

A. CONNECTION



B. ADJUSTMENT

Adjust the SVR601 until the C606 6+ pin becomes "0" voltage.

SPECIFICATIONS

Rated Output Voltage (RMS) $\dots 1.2V \pm 100mV$
Input Sensitivity
CH 1,2,3,4 (Variable by Input ATT) 1mV to ∞ (at 1KHz)
CH 5,6,7,8,9,10 (Variable by Input ATT)
at Mic/Line function
at Phono function
Aux 1,2
Total Harmonic Distortion at 20Hz to 20KHz
1.2V Output (Aux)
Frequency Response at -3dB
at Input ATT 0 Position
at Input ATT −20dB Position 27Hz to 47KHz
at Input ATT -40dB Position27Hz to 54KHz
S/N Ratio
at Input ATT 0 Position 55dB (at 1KHz)
at Input ATT -20dB Position 61dB (at 1KHz)
at Input ATT -40dB Position 65dB (at 1KHz)
Aux
Tone Control
Bass at 100Hz ±15dB
Mid at 1KHz ±12dB
Treble at 10KHz ±15dB
Graphic EQ Effect
40Hz
160Hz±12dB
400 Hz ± 12 dB
1KHz±12dB
2.5KHz±12dB
6.3KHz±12dB
16 KHz
Phono Equalization
Echo Effect
Delay Time
Repeat 1 to 7 Times
Headphone Output (at 1KHz 8 ohm Load) 1.5mW

PARTS LIST

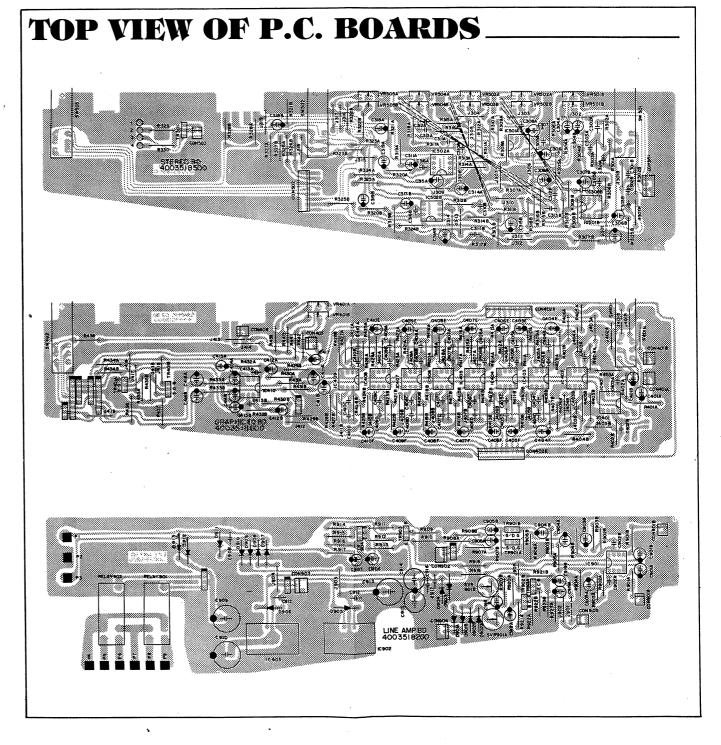
Ref No.	Parts No.	Description	Q'ty	Ref No.	Parts No.	Description	Q'ty
	40035187	700 SUB PCB MIC	4	C217, C218			
		T	Ţ	C203	Ł.	CAP C 5PF 50V C	2
IC101, IC102	2168220104	NJM4558D JRC	8	C211		CAP C 33PF 50V J	2
T101	2808000100	TRANSFORMER IT-172	4	C219		CAP C 56PF 50V J	2
C101, C117	3409210971	CAP E 1uF 50V	8	C208	1 1 1 1	CAP M 0.001uF 100V J	2
C102, C113	3409210071	CAP E 10uF 50V	12	C201	1	CAP M 0.0015uF 100V J	2
C114				C202	1	CAP M 0.0082uF 100V J	2
C103, C104,	3409247031	CAP E 47uF 16V	16	C209, C210	3609562120	CAP M 0.0056uF 100V J	4
C115, C116				C212, C213	3609473120	CAP M 0.047uF 100V J	4
C107	3509509030	CAP C 5PF 50V C	4		4000=404		
C112	3509830130	CAP C33PF 50V J	4		40035185	500 SUB PCB STEREO	2
C106	3509560130	CAP C56PF 50V J	4		1	1	1
C105	3609102120	CAP M 0.001uF 100V J	4	IC301A,B	2168220104	NJM 4558D JRC	8
C108, C109	3609562120	CAP M 0,0056uF 100V J	8	IC302A,B			
C110, C111	3609473120	CAP M 0.047uF 100V J	8	TR301	2008606104	TR NPN KTC1815Y KEC	2
R121, R122	3009330273	RES CF 33 ¹ / ₄ W J N	8	R324A,B	3009330273	RES CF 331/4W J N	8
R106, R110	3009470273	i e	8	R325A,B			
R103	3009101273		4	R307A,B	3009470273	RES CF 471/4W J N	8
R118	i	RESCF 1K¼W J N	4	R308A,B			
R102	1	RES CF 1.5K ¹ / ₄ W J N	4	R304A,B	3009101273	RES CF 1001/4W J N	4
R117	1	RES CF 3.3K ¹ / ₄ W J N	4	R305A,B	3009391273	RES CF 3901/4W J N	4
R105, R107	3009562273		16	R319A,B	3009102273	RES CF 1K1/4W J N	4
R115, R119	50035022.0			R320A,B	3009332273	RES CF 3.3K ¹ / ₄ W J N	12
R109, R112	3009103273	RES CF 10K1/4W J N	8	R323A,B			
R111, R113		RES CF 27K ¹ / ₄ W J N	8	R327A,B			
R111, R115 R124, R125,	1	RES CF 33K¼W J N	12	R309A,B	3009562273	RES CF 5.6K ¹ / ₄ W J N	16
R124, R123,	3009333273	RES CI SSR/4W S IV		R310A,B		1	1
R126	3009473273	RES CF 47K1/4W J N	4	R315A,B			
R114	3009473273	,	4	R318A,B			
R104, R120			8	R329	3009752273	RES CF 7.5K¼W J N	2
R104, R120	1	[=	8	R311A,B	3009103273		10
K100, K123	3009334273	RES CT 550R/4W 5 TV		R314A,B			
	4002510	300 SUB PCB PHONO	2	R330			
	4003318	300 SUB PCB PHONO	2	R312A,B	3009273273	RES CF27K ¹ / ₄ W J N	8
	T		1	R317A,B			
		NJM4558D JRC	4	R303A,B,	3009333273	RES CF 33K1/4W J N	12
		RES CF 33 ¹ / ₄ W J N		R326A,B			
R208, R211	I	l	4	R328A,B			
R204	3009101273	1	2	R316A,B	3009473273	RES CF 47K ¹ / ₄ W J N	4
R206	3009391273		2	R313A,B	3009563273		4
R219	3009102273	,	2	R310A,B	3009823273		4
R218	3009332273		2	R306A,B	3009104273	i i	8
R207, R208	3009562273	RES CF 5.6K ¹ / ₄ W J N	8	R321A,B	3003101273	RES OF TOORS	"
R216, R220	5			R302A,B	3009334273	RES CF 330K ¹ / ₄ W J N	8
R210, R214		RES CF 10K ¹ / ₄ W J N	4	R322A,B	3003331273	TEES OF SSORE, THE STA	
R212, R213		RES CF 27K1/4W J N	4	C320	3409247871	CAP E 0.47uF 50V	2
R202, R225	5, 300933327	RES CF 33K ¹ / ₄ W J N	8	C304A,B,	3409247871	ļ ·	8
R226, R227				C318A,B	37072109/1	Din Din Sov	
R217	300947327	3 RES CF 47K1/4W J N	2	C317A,B,	3409210071	CAP E 10uF 16V	8
R215	300956327		2	C317A,B,	34032100/1	CALL LOUI TOV	8
R203	300982327	3 RES CF 82K1/4W J N	2	11	3/00222021	CAP E 33uF 16V	4
R205, R221	1 300910427	3 RES CF 100K¼W J N	4	C306A,B C307A,B,	3409233031		16
R201, R224	4 300933427	3 RES CF 330K1/4W J N	4	11	340724703	CAF E 4/ur 10V	10
C204, C214			4	C309A,B,			1
C215,C216	1	1 CAP E10uF 50V	4	C314A,B,		· ·	
C205	340923303	4	2	C315A,B	250050000	CAR CEPE 50V.C	
C206, C207	7, 340924703	1 CAP E 47uF 16V	8	C301A,B	3009009030	CAP C 5PF 50V C	4

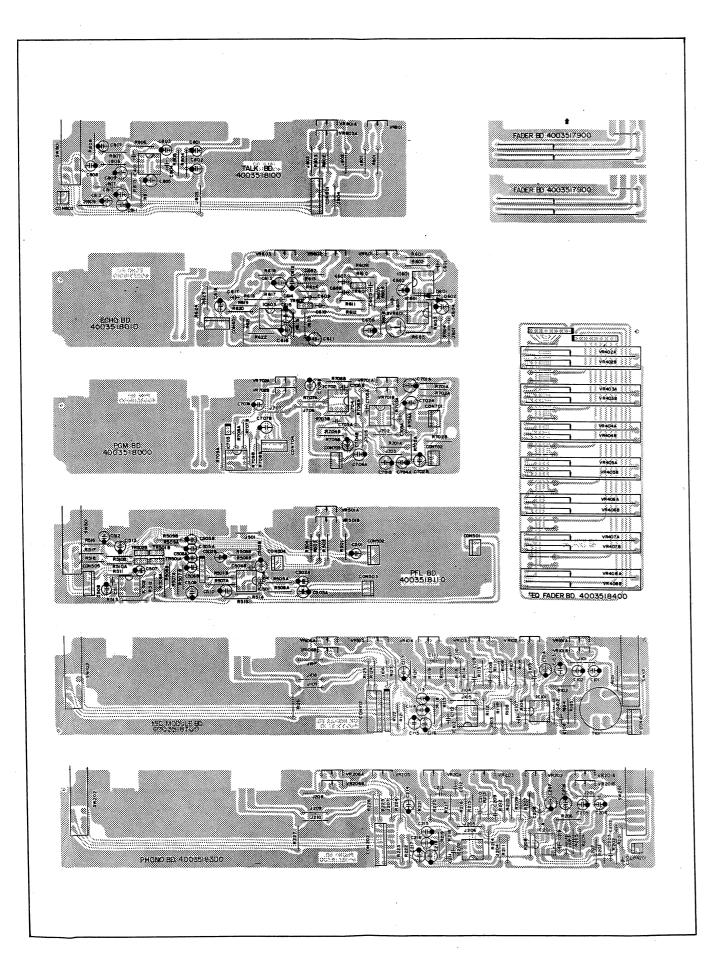
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Ref No.	Parts No.	Description	Q'ty	Ref No.	Parts No.	Description	Q'ty
C316A,B	3509330130	CAP C 33PF 50V J	4	R437	3009224273	RES CF 220K1/4W J N	1
C305A,B	3509560130	· ·	4	R435A,B	3009335273	RES CF 3.3M1/4W J N	2
C308A,B	3609102120		4	C410E,F	3409210971	CAP E 0.47uF 50V	2
C303A,B	3609152120	1	4	C409E,F,	3409210971	CAP E 1uF 50V	3
C302A,B	3609822120	CP M 0.0082uF 100 V J	4	C417			
C310A,B,	3609562120	CAP M 0.0056uF 100V J	8	C408E,F	3409222971	CAP E 2.2uF 50V	2
C311A,B				C407E,F	3409247971	CAP E 4.7uF 50V	2
C312A,B,	3609473120	CAP M 0.047uF 100V J	8	C401A,B	3409210071	CAP E 10uF 50V	8
C313A,B				C406E,F,			
	<i>1</i> 002 <i>5</i> 10 <i>4</i>	COO CLUD DCD EO		C412A,B		·	
	40033100	500 SUB PCB EQ	1	C415A,B			
IC401, IC402	2168220104	NJM4558D JRC	10	C405E,F	3409222041	CAP E 22uF 25V	2
IC403, IC404	1			C404E,F,	3409247031	CAP E 47uF 16V	8
IC405, IC406				C411A,B,			
IC407, IC408	•	·		C414A,B,		·	
IC409, IC410	I			C416A,B			_
TR401A,B	2018207110	FET N-CH 2SK30A TMY	2	C413A,B	3509330130	CAP C 33PF 50V J	2
R433A,B	3009330273	RES CF 33 ¹ / ₄ W J N	2	C402A,B,	3509101130	CAP C 100PF 50V J	4
R431A,B	3009470273	RES CF 471/4W J N	2	C403A,B,C,D		CAP M 0.0022uF 100V J	4
R401A,B	3009101273	RES CF 1001/4W J N	2	C409A,B,C,D		CAP M 0.0056uF 100V J	4
R407A,B	3009151273	RES CF150¼W J N	14	C408A,B,C,D		CAP M 0.015uF 100V J	4
R410A,B,				C407A,B,C,D		CAP M 0.039uF 100V J	4
R413A,B,				C406A,B,C,D	1		4
R416A,B,				C405A,B,C,D	l	CAP MT 0.33uF 50V J	4
R419A,B,				C404A,B,C,D	3639105110	CAP MT 1uF 50V J	4
R422A,B					4002510	140 CHID DOD DEX	
R425A,B					4003518.	110 SUB PCB PFL	1
R428A,B	3009221273	RES CF 2201/4W J N	2				
R409A,B,	3009102273	RES CF 1K1/4W J N	16	IC501, IC502	2168220104	NJM 4558D JRC	2
R412A,B,				TR501A,B	2008206105	TR PNP KTA1015Y KEC	2
R415A,B,				TR502A,B	2008606104		2
R418A,B,				R514, R515	3009330273		2
R421A,B,				R512, R513	3009470273		2
R424A,B,	İ			R505A,B,	3009102273	RES CF 1K¼W J N	4
R427A,B,				R507 A,B	200022222	DESCE 2 2KI/W I N	
J401A,B,				R502, R503	1	RESCF 3.3K¼W J N	2
R430A,B	i i	RES CF 2.2K¼W J N	2	R506A,B	3009331273		2
R441, R442	3009332273	RES CF 3,3K ¹ / ₄ W J N	2	R507A,B	3009103273		2
R434A,B,	3009472273	RES CF 4.7K¼W J N	3	R511 R509A,B	3009153273 3009473273	· ·	1
R436		_		R501, R504	3009473273		2
R402A,B,	3009562273	RES CF 5.6K ¹ / ₄ W J N	8	R510A,B,	3009393273	l	2 4
R403A,B,				R517, R518	3009104273	RESCF 100R94W J N	4
R404A,B,				R516	3009154273	RES CF 150K1/4W J N	1
R405A,B				R508A,B	3009334273		2
R408A,B,	3009183273	RESCF 18K¼W J N	14	C501, C505A	1		5
R411A,B,				B, C507, C50	1	CAI L Iui 30V	,
R414A,B,				C506A,B,	3409247871	CAP E 4.7uF 50V	4
R417A,B, R420A,B,				C512, C513			'
R420A,B, R423A,B,				C502A,B	3409222041	CAP E 22uF 25V	2
R423A,B, R426A,B				C503A,B,	3409247031	1	4
R426A,B R406A,B	3000222212	RES CF 22K ¹ / ₄ W J N	_	C509, C510			
R432A,B	3009223213	1	2	C511	3509330130	CAP C 33PF 50V J	1
	i .		2	C504A,B	3509560130	1	2
R439, R440 R429A,B	3009393273	1	2			1.	<u></u>
R429A,B R438	3009473273 3009154273	l .	2		4003518	010 SUB PCB ECHO	1
L***30	30031342/3	RES CF 150K¼W J N	1		.000010		

	·		
Ref No.	Parts No.	Description	Q'ty
IC601 .	1	MN3101 MATSU	1
IC602	2168010103	MN3007 MATSU	1
IC603	2168220104	NJM4558DD JRC	1
TR601, TR602	2 2008606101	TR NPN KTC732 TM BL KEC	2
D601, D602	2058304100	DIODE CDG24 FAIR	2
SVR601	3248310320	RES SEMI CS10KB 10/5	1
R603, R615	3009151273	RES CF 150¼W J N	2
R609, R613	3009682273	RES CF 6.8K¼W J N	2
R608, R611	3009123273	RES CF 12K¼W J N	2
R618, R623, R624	3009333273	RES CF 33K¼W J N	3
R607, R610, R612, R614	3009393273	RES CF 39K¼W J N	4
R604, R605, R621, R622	3009104273	RES CF 100K¼W J N	4
R617	3009124273	RES CF 120K ¹ / ₄ W J N	1
R620	!!!	RES CF 150K ¹ / ₄ W J N	1
R601	3009184273	RES CF 180K ¹ / ₄ W J N	1
R606, R616,	3009184273	RES CF 220K ¹ / ₄ W J N	3
R619	3007224213	THE OF BEUILTY S IN	
R602	3000694273	RES CF 680K1/4W J N	1
	1	CAP E 0.47uF 50V	2
C606, C618			1
C612	3409210971		3
C602, C613,	3409233971	CAP E 3.3uF 50V	3
C616 C604, C611,	3409247031	CAP E 47uF 16V	3
C615		C. D. C. 500DD 5011 1	
C614		CAP C 560PF 50V J	1
C601		CAP C 180PF 50V J	1
C607, C609		CAP M 0.0015uF 100V J	2
C603, C608	1	CAP M 0.0033uF 100V J	2
C617	3609562120	CAP M 0.0056uF 100V J	1
C605, C610	3609682120	CAP M 0.0068uF 100V J	2
4	00351800	00 SUB PCB MONITOR	1
IC701, IC702 IC703	2168220104	NJM4558D JRC	3
R701A,B	3009330273	RES CF 33¼W J N	2
R707A,B	3009470273		2
R705A,B	3009391273		2
R703A,B	3009391273	RES CF 1K¼W J N	2
R704A,B	3009102273	RES CF 1.5K½W J N	4
•	3007132213	TEG CI I.SIK/4W J IV	'
R706A,B	2000/72272	DES CE 47K1/4W I N	2
R702A,B	3009473273	ļ	4
R708A,B	3009334273	RES CF 330k¼W J N	"
R709A,B	2400010071	CARE INF 50V	1,
C706A,B		CAP E 1uF 50V	2
C707A,B	1	CAP E 10uF 50V	2
C704A,B	3409222041	1	2
C701A,B,	3409247031	CAP E 47uF 16V	4
C702A,B			
C705A,B	1	CAP C 33PF 50V J	2
C703A,B	3509560130	CAP C 56PF 50V J	2
	40035181	00 SUB PCB TALK	. 1

Ref No.	Parts No.	Description	Q'ty
IC801	2168220104	NJM4558D JRC	1
R810, R811		RES CF 47¼W J N	2
R804	3009102273	RES CF 1K ¹ / ₄ W J N	1
R807	3009152273	RES CF 1.5K1/4W J N	1
R805	3009392273	RES CF 3.9K ¹ / ₄ W J N	1
R809	3009123273	RES CF 12K ¹ / ₄ W J N	-1
R802, R803	3009333273	RES CF 33K¼W J N	2
R808	3009104273	RES CF 100K¼W J N	1
R801, R806	3009334273	RES CF 330K¼W J N	2
C808		CAP E 1uF 50V	1
C807	1	CAP E 10uF 50V	1
C801, C802, C803		CAP E 22uF 25V	3
C812	1 1	CAP E 33uF 16V	1
C805, C809, C810, C811		CAP E 47uF 16V	4
C806	1	CAP C 5PF 50V C	1
C804	3509330130	CAP C 33PF 50V J	1
	40035182	200 PCB LINE AMP	1
IC901	2168220104	NJM4558D: JRC	1
IC902		IC UPD 7815 NEC	1
IC903	1	IC UPD7915 NEC	1
,		FET N-CH 2SK30 TMY	2
,	i	TR NPN KTC1815Y KEC	3
•		TR PNP KTA1015Y KEC	1
D901A,B, D902A,B	2058010100		4
D903, D904, D905, D906, D907, D908, D909, D910, D911, D912, D913	2058106100	DIODE RECTIFIER 1N4002	11
RELAY901, 902	5528001150	RELAY VB-24B 24V DC TAKAMI	2
SVR901A.B	3248310320	1	2
R912, R918, R919	3009470273	RES CF 47¼W J N	3
R905A,B, R922A,B	3009101273	RES CF 1001/4W J N	4
R901A,B, R903A,B	3009102273	RES CF 1K¼W J N	. 4
R902A,B, R920A,B	3009222273	RES CF 2.2K¼W J N	4
R909, R917	1	RES CF 8.2K ¹ / ₄ W J N	2
R923A,B	1	RES CF 4.7K ¹ / ₄ W J N	2
R906A,B, R915, R916		RES CF 10K1/4W J N	4
R904A,B	1	RES CF 47K1/4W J N	2
R921A,B		RES CF 56K¼W J N	2
R911, R914		RES CF 82K1/4W J N	. 2
R913	1	RES CF 100K¼W J N	1
R907A,B,	3009224273	RES CF 220K ¹ / ₄ W J N	3
R910	i	1	1

Ref No.	Parts No.	Description	Q'ty	Ref No.	Parts No.		
C918A,B	3409210971	CAP E 1uF 50V	2	C914, C915	3409247131	CAP E 470uF 16V	2
C904A,B,	3409247971	CAP E 4.7uF 50V	7	C909, C910,	3409247141	CAP E 470uF 35V	3
C905A,B	Ì			C913			
C907,				C902A,B	3509330130	CAP C 33PF 50V J	2
C909A,B				C908	3509103450	CAP C 0.01uF 500V P	1
C906	3409210071	CAP E 10uF 50V	1	C911, C912	3509104530	CAP C 0.1uF 50V Z	2
C903A,B	3409222071	CAP E 22uF 25V	2	C916, C917	3609104120	CAP M 0.1uF 100V J	2
C901A,B	3409247031	CAP E 47uF 16V	2				

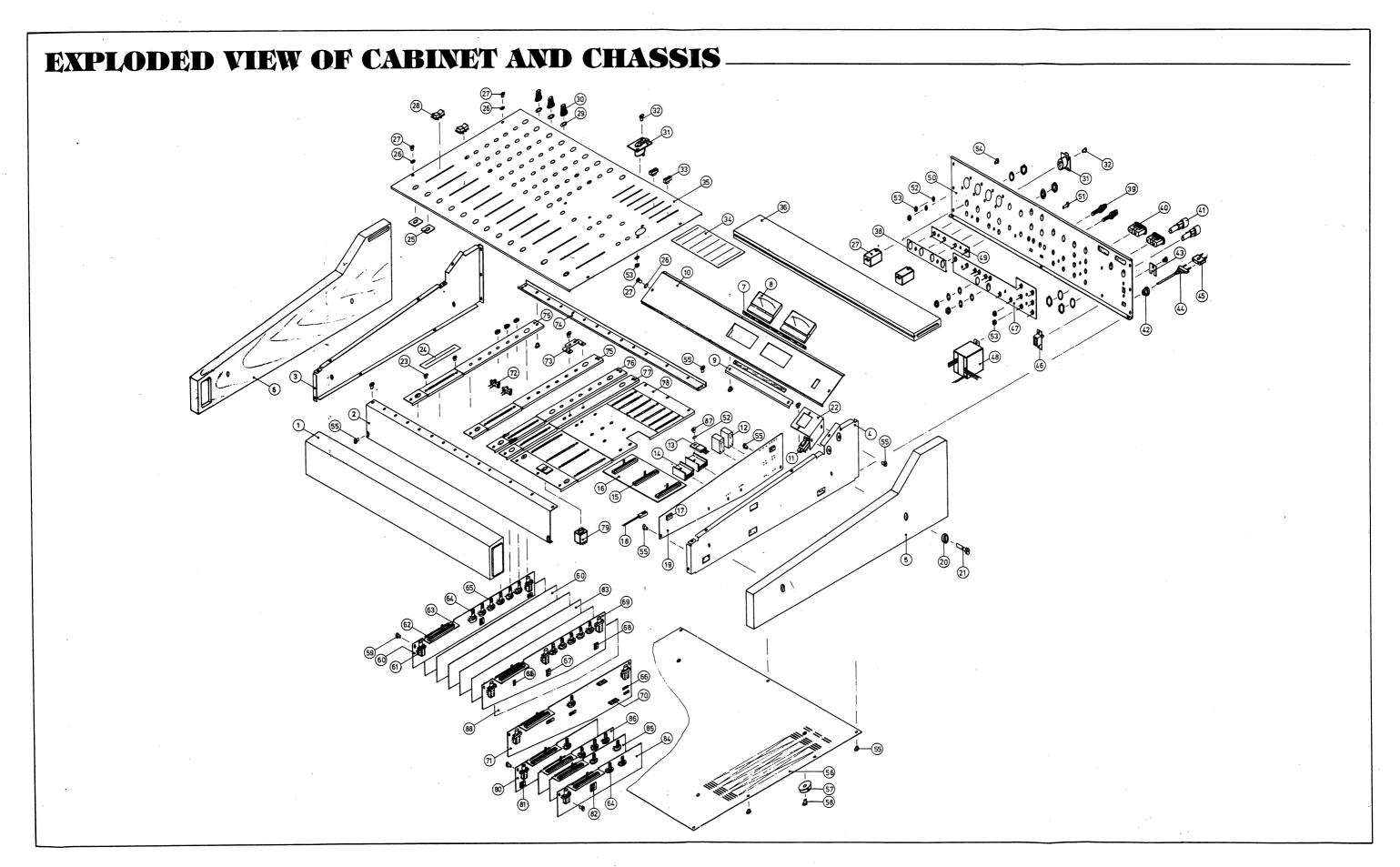


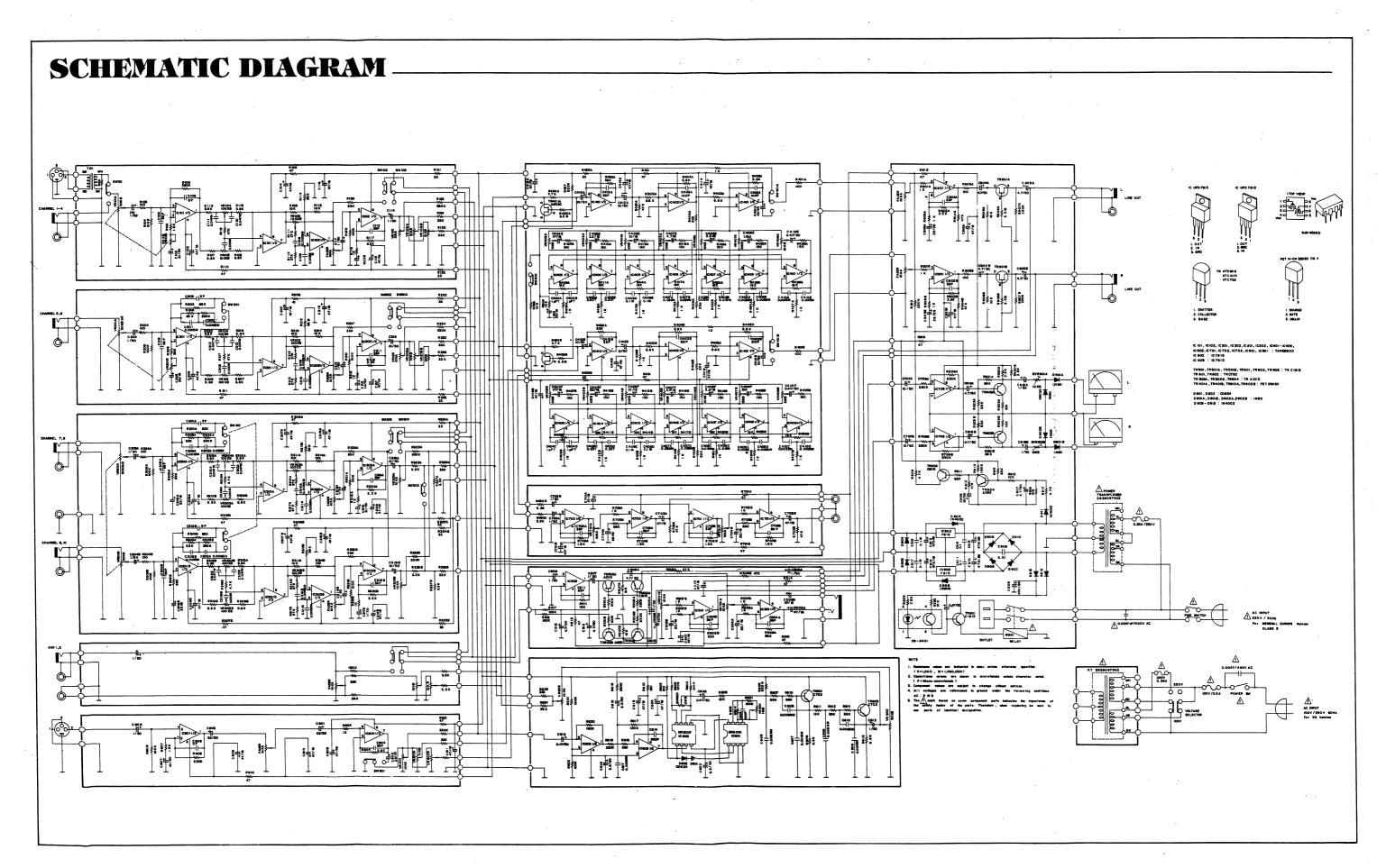


PRO MX-1200 Parts List According to Exploded View

n	U IVIA-1200 Pal	i ið Liði A	
Ю.	DESCRIPTION	PARTS NO.	Q'TY
1	FRONT WOOD	8602399810	1
2	CHASSIS FRONT	6122299110	1
3	FRAME SIDE (L)	6122697410	1
4	FRAME SIDE (R)	6122697310	1
5	PLATE WOOD (R)	6122697210	1
6	PLATE WOOD (L)	6122697110	1
7	RUBBER SPONGE	6715001310	2
8	METER	5328001130	2
9	METER BRACKET	6503997410	1
10	PANEL METER	8602995910	1
11	SWITCH LOCKER	4648000410	1
12	RELAY VB-24MB 24V	5528001150	2
	DC TA'KAMI		
13	IC UPD7815 NEC	2168613103	2
14	HEAT SINK	7505201110	2
15	SLVR 45L 10KB x 2	3238099310	7
16	EO FADER PCB	4003518400	1
17	SPONGE	6715001520	3
18	CONNECTOR ASS'Y 2P	4355997610	1
19	LINE AMP PCB	4003518200	1
20	WASHER CABINET	6305000520	4
21	SCREW BM 4 x 24B	8009140243	4
22	SWITCH BRACKET	6502999410	1
23	SCREW BM 2 x 3Y	8009120031	38
24	STRIP FELT	6735002310	13
25	PUSH BEZEL	8525999710	22
26	WASHER VINYL	8305001410	6
27	SCREW PM 2.6 x 6B	8019126063	6
28	KNOB SLIDE	8543000711	13
29	FELT STRIP	6735002010	55
30	KNOB CONTROL	8545999210	55
30-1	CAP KNOB BLUE	8555999910	8
30-2	CAP KNOB GREEN	8555999920	8
30-3	 	8555999930	8
30-4		8555999940	31
31	CANON CONNECTOR	4358999610	5
32	SCREW RF 3 x 10N	8009130104	10
33	KNOB SLIDE	8543002910	7
34	STRIP FELT	6735999410	1
35	PANEL FRONT	8601999810	1
36	DECORATION WOOD	8623999910	1
37	MIC JACK	4438000120	14
38	JACK BRACKET	6505996910	1
39	SYSTEM GND	4463100210	2
 40		4448100410	2
	OUTLET AC	4458000220	2
41	FUSE HOLDER	4438000220	

NO.	DESCRIPTION	PARTS NO.	Q'TY
42	STOPPER CORD	6513000310	1
43	VOLTAGE SELECTOR HOLDER	6515000620	1
44	AC CORD	4308000810	1
45	AC PLUG ADAPTOR	4428300119	1
46	VOLTAGE SELECTOR SWITCH	4618000410	1
47	RCA JACK 14P	4438199810	1
48	POWER TRANSFORMER	2828097502	1
49	RCA JACK 4P	4438199910	1
50	CHASSIS BACK	6102996410	1
51	SCREW PM 3 x 8B	8019130083	6
52	SPRING WASHER	8319130011	18
53	NUT M3	8209130011	16
54	SCREW #3BTC 3 x 6B	8109330063	10
55	SCREW #3BTC 3 x 6Y	8109330061	55
56	BOTTOM COVER	6121699810	1
57	FOOT RUBBER	6335000610	4
58	SCREW #2BTC 3 x 12Y	8109230121	4
59	SCREW #2WPTC 3 x 6Y	8159230061	4
60	PCB MIC	4003518700	4
61	PUSH SWITCH	4628998210	22
62	SLVR 60L 10KA x 1	3238099210	11
63	SUB PCB FADER	4003517900	13
64	Ø16 VR 10KB x 2K 20	3228099510	9
65	Ø16 VR 100KB x 1K 20	3228099710	18
66	WAFER 2P	4355005010	12
67	WAFER 8P	4428598280	8
68	WAFER 4P	4428598240	3
69	SUB PCB STEREO	4003518500	2
70	WAFER 9P	4428598290	2
71	PCB EQ	4003518600	1
72	PHOTO COUPLE	2408000199	2
73	PANEL BRACKET	6505997210	2
74	FRAME CENTER	6122498710	1
75	MIC MODULE	6502999250	6
76	STEREO MODULE	6502999110	2
77	EQ MODULE	6502999510	1
78	MASTER MODULE	6502999310	1
79	STEREO JACK	4438000110	1
80	PCB PFL	4003518110	1
81	WAFER 5P	4428598250	4
82	WAFER 7P	4428598270	1
83	PCB PHONO	4003518300	2
84	PCB TALK	4003518100	1
85	PCB MONITOR	4003518000	1
86	PCB ECHO	4003518010	1
87	SCREW #2BTC 3 x 8Y	8109230081	4





BLOCK DIAGRAM EQ ON / OFF ECHO VOL CHANNEL FADER GRAPHIC EQ INPUT GAIN HEADPHONE CHANNEL FADER CHANNEL O MONITOR OUT RIAA FLAT O O TALK 1.2 CHANNEL FADER